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## RAN Application: Terminal-based OA&M

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This chapter describes the terminal-based OA&M access using menus and commands:

- screens and commands supported by the terminal-based OA&M application
- special feature operation

The software described here is part of the MIRAN-specific OA&M tool running under VxWorks and is independent of Meridian 1 software.

### General steps in configuring MIRAN

To give you a general sequence of steps in configuring MIRAN functions and then using the terminal-based OA&M access to configure system RAN and MOH applications, follow the steps below:

- 1 Configure the RAN and MOH trunk route and trunk data block, as described in “MIRAN configuration” on page 62, by using LD 16 and LD 14 programs. This step is completed during installation and configuration (as described in *Installation and configuration* chapter).
- 2 Configure DID trunk for the telephone set-based OA&M access, if required. For a configuration example, refer to “DID configuration for telephone set-based OA&M access” on page 181. This step is completed during installation and configuration (*Installation and configuration* chapter).
- 3 Setup the terminal for the terminal-based OA&M access. This step is completed during system installation and configuration and as described in “Configuring the terminal for terminal-based OA&M access” on page 74 the *Installation and configuration* chapter.

- 4 Enter your password. The default password for distributor and user access is “4321”.
- 5 Enter the keycode, if not already entered. Refer to “Keycode Entry” on page 139.  
  
*Note:* The keycode is entered using the terminal only when MIRAN is first installed into Option 11E/11C or if it is purchased as merchandize. A new keycode has to be entered after each software or channel capacity upgrade. However, the keycode is preloaded in the factory when MIRAN is ordered with a Meridian 1 system option and does not have to be entered on the terminal.
- 6 Record messages. From the Main Menu select RAN Administration menu and from this menu select Record Message screen. Refer to “Record Messages” on page 122. You can now record one or more messages you can then assign to different channels.
- 7 Assign a message. From the Message Commands menu, select Assign Message screen to assign a specific announcement file (you just recorded or you selected from the existing recording files) to a specific channel with a specific starting time. You can repeat this step for other files and channels. Refer to “Assign Message” on page 118.
- 8 Backup the original configuration onto the drive C:, or a PCMCIA card in drive A:, when equipped.
- 9 Copy new files (if first installing or upgrading software) from drive A: to drive C:. Remove the PCMCIA from drive A: and store in a safe place for future use or in case the MIRAN card fails. This would allow you to copy the configuration into the new MIRAN without having to re-configure the system and re-record messages.

## Description of terminal-based OA&M

The terminal-based OA&M application is provided through the RS-232 maintenance port on a MIRAN card. The MIRAN is connected directly to a VT-100 terminal or to a PC running a terminal emulation program.

Up to 16 MIRAN cards can be interconnected using the RS-232 ports to create a simple LAN. This LAN daisy-chain connection allows maintenance of all MIRAN cards from a single terminal.

There are two ways to use a terminal-based OA&M user interface to access all commands and options:

- Use the menu system
- Enter commands on the command line

To run the terminal-based user interface, configure the VT-100 terminal emulation parameters as shown below in Table 24.

**Table 24**  
**Terminal configuration parameters**

| Parameter           | Setting   |
|---------------------|-----------|
| Transmission rate   | 9600 baud |
| Data bits; stop bit | 8         |
| Stop bit            | 1         |
| Parity              | No        |
| Flow control        | None      |

**Note:** If you are using Windows<sup>TM</sup> based terminal emulation, you have to disable the CTRL and ARROWS keys by using Windows, because these keys are used by the OA&M access to traverse the menus.

## Logon screen

This screen appears when you press the Enter key after you connect the terminal to the MIRAN maintenance port. The prompt displays the **VLAN ID nn**, where **nn** is the MIRAN number in the daisy-chain for the card currently being accessed. The maintenance terminal is always connected to the first MIRAN in the LAN and is numbered 00 automatically.

This Logon screen allows you to log in by entering the password or to select *Status* to display the Status screen without entering the password.

```
[10002345]                - Log On -
[VLAN ID 00]

###      ###  ##  #####          ###      ###      ##
## ## ## ##  ##  ##  ##          ## ##          ## ##  ##
##  ## ##  ##  ##  ##          ##  ##          ##  ##  ##
##  #  ##  ##  #####  #####      ##  ##  ##
##      ##  ##  ##  ##          ##  ##          ##  ##  ##
##      ##  ##  ##  ##  ##          ##  ##          ##  ###

      Meridian Integrated RAN Application
      Version x.xx
      Copyright (c) Nortel Ltd. 1996

      Password: ->4321 <-

              - Log on -

              - Status -

              - Next Pack -

              - Previous Pack -

      Keycode Validated
```

**Log on** - can be selected only after you first enter the password.

**Status** - is used to display the Status screen without logging on.

**Next/Previous Pack** - selects one of the other MIRAN cards, if equipped.

## Status screen

This screen is displayed on the terminal when you select *Status* in the Logon screen. It displays the current status of the RAN Application version and release, the board status, the current time, and the status of the 8 one-to-one channels and two cross-connect channels. To display up-to-date channels status, refreshed the screen by pressing the spacebar.

```

[10002345]                                -Pack Status-                                [NT_DISTRIB]

Board Enabled: No           Current Time: MON 12:25:09

Channel  Enable  Application  Playback Level  Message Source  Active
0         Y      STOP/START RAN      13             A:MSG01.ULW     Y
1         Y      STOP/START RAN      13             A:MSG02.ULW     Y
2         Y      STOP/START RAN      13             A:MSG03.ULW     Y
3         Y      STOP/START RAN      13             A:MSG04.ULW     Y
4         N      Unequipped           13                                 N
5         N      Unequipped           13                                 N
6         N      Unequipped           13                                 N
7         N      Set Based             13                                 N

Cross Connect Ports

Port      Function  Application      Level      Message Source  Active
A0        Output    Idle            13         A:MSG01.ULW     N
A0        Input     Idle            13         A:MSG02.ULW     N
A1        Output    Idle            13         A:MSG03.ULW     N
A1        Input     Idle            13         A:MSG04.ULW     N

Press Enter to continue

```

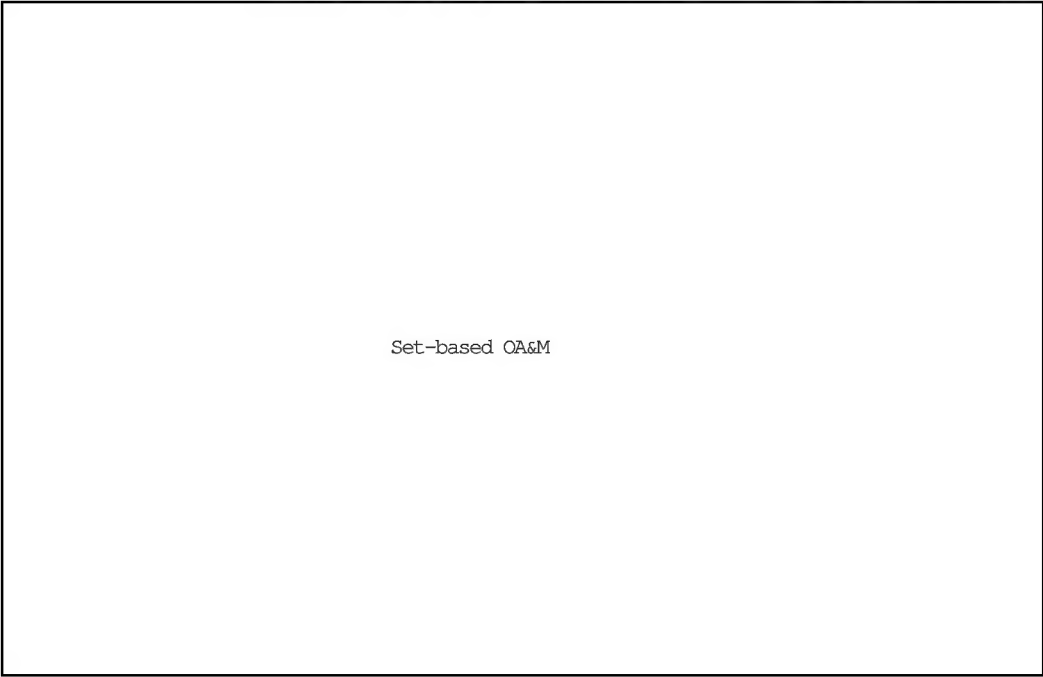
To exit this screen, press the Enter key. The terminal will display the Logon screen. At the Logon screen you can enter the password to access the Main Menu screen.

## Setting up telephone set-based OA&M access

To configure the system for the telephone set-based OA&M access, you must:

- 1 Assign channel 7 for the telephone set-based OA&M access, if not already assigned, refer to “OA&M Access Configuration” on page 142.
- 2 Go off-hook and dial the access code.
- 3 MIRAN display shows RA-S indicating that the telephone set-based OA&M is now active and the terminal is locked out until the telephone set goes on-hook.

The following screen is displayed on the terminal as long as the telephone set-based OA&M access is active.



Set-based OA&M

## Main Menu

The Main Menu screen is displayed when you enter the password and select *Log on* in the Logon screen. Each option listed on the Main Menu leads to another task screen or submenu.

The Main Menu options are four top level submenus:

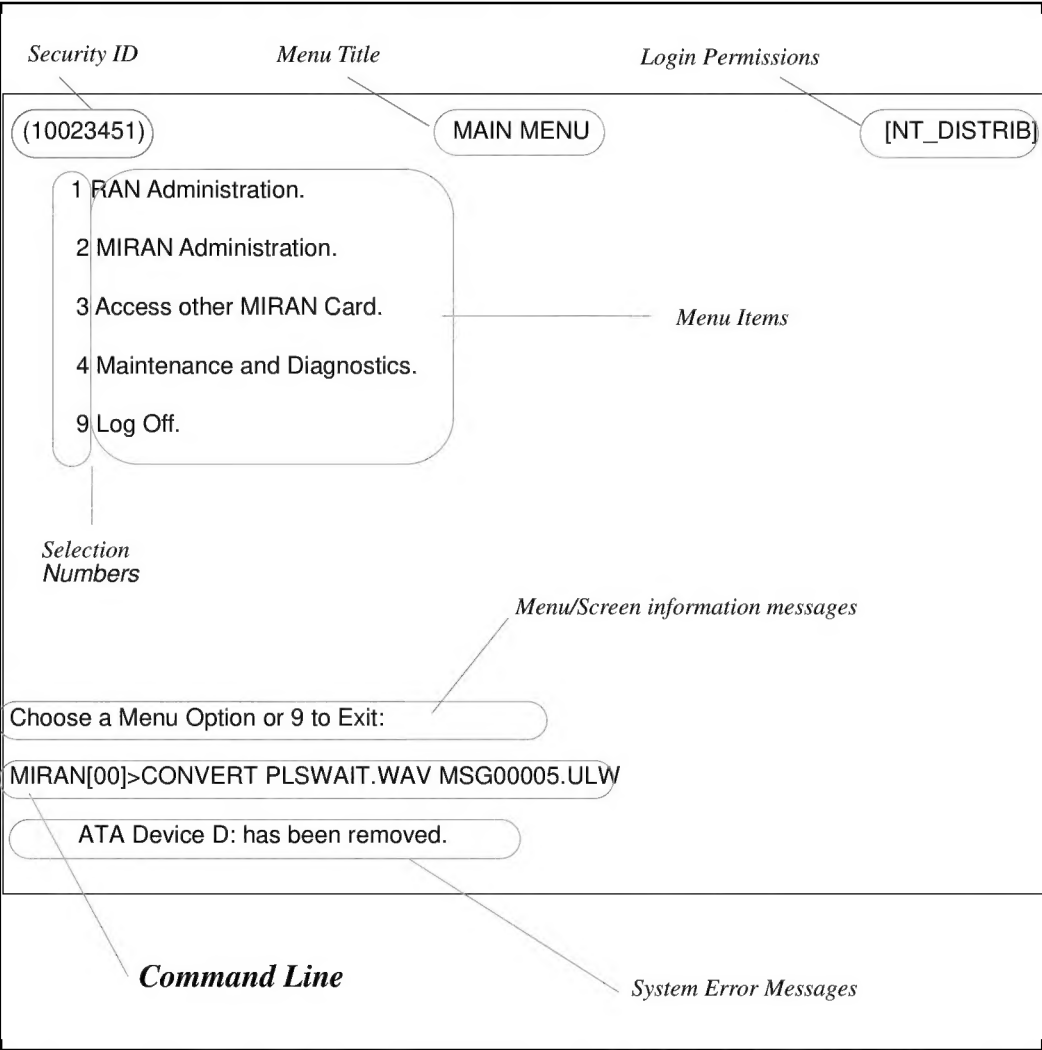
- **RAN Administration** - Includes all RAN-specific tasks and menus (e.g., message commands, operational statistics, backup and restore configuration, set playback levels, and run batch file).
- **MIRAN Administration** - accesses all MIRAN-specific tasks and menus (e.g. file commands, keycode entry, software upgrade, pack information, and OA&M access configuration).
- **Access to other MIRAN cards** - accesses any other MIRAN card in a multi-MIRAN installation where all MIRAN card are connected in a LAN configuration. When you select this option in the Main Menu, the control passes to the next MIRAN card in the chain.
- **Maintenance and Diagnostics** - provides access to system information, password change, command line access, warm reboot, and cold reboot. The distributor can access all functions, and user can access only system information and password change.
- **Logoff** - logs you out of the Main Menu and the terminal displays the Logon screen.

The example Main Menu below shows circles labeling the fields of features displayed on a typical screen.

The next figure shows the actual Main Menu as it appears on the screen.

The Main Menu also provides for a command line entry, where instead of selecting a menu on the screen, you can enter and execute a command. Refer to the example Main Menu below that shows the command line at the bottom of the screen.

Enter at the command line; **XCOPY A:\*.SBC C:** to copy across all of the telephone set-based OA&M prompts.





[10002341]

MAIN MENU

[NT\_DISTRIB]

- 1 RAN Administration
- 2 MIRAN Administration
- 3 Access other MIRAN Card
- 4 Maintenance and Diagnostics
  
- 9 Log Off

Choose a Menu Option or 9 to Exit:

MIRAN [00]>

## RAN Administration

The RAN Administration provides a set of menus that control RAN configuration, display operational statistics, set playback level, and run batch files.

To access the RAN Administration menu, press ‘1’ in the Main Menu.

```
[10002341]                -RAN Administration-                [NT_DISTRIB]

    1  Message Commands
    2  Operational Statistics
    3  Backup Configuration
    4  Restore Configuration
    5  Playback Level
    6  Run Batch File

    9  Back to Previous Menu...

Choose a Menu Option or 9 to Exit:
MIRAN[00]>
```

- **Message Commands** - displays the Message Commands menu that deals with RAN messages
- **Operational Statistics** - displays RAN channel usage statistics
- **Backup Configuration** - saves announcement messages to a disk
- **Restore Configuration** - restores the announcement messages from a disk to the MIRAN

- **Set Playback Level** - sets the sound volume (loudness) for each channel
- **Run Batch File** - executes a batch file containing OA&M commands. It allows multiple channel assignments to be performed with a single command used for switching RAN in and out of assignment for emergency or holidays time table and announcements types.

## Message Commands

Press '1' on the RAN administration menu to access the Message Commands submenu.

```
[10002345]           -Message Commands-           [NT_DISTRIB]

    1  Assign Message
    2  List Assignments
    3  Copy Assignments
    4  Clear Assignments
    5  Record Message
    6  Play Message
    7  Convert Message File
    9  Back to Previous Menu...

Choose a Menu Option or 9 to Exit:
MIRAN[00]>
```

The Message Commands entries are used to control message assignments and recording of new messages on the MIRAN. Each entry represents a menu that follows below.

## Assign Message

Assign Message menu allows you to assign messages to specific channels and specify the time and day when the message will be active.

|                       |                  |              |
|-----------------------|------------------|--------------|
| [10002345]            | -Assign Message- | [NT_DISTRIB] |
| Day: -> Wed <-        |                  |              |
| Channel: 2            |                  |              |
| Filename: A:AARAN.ULW |                  |              |
| - Browse -            |                  |              |
| Time:00:00            |                  |              |
| Abstract:             |                  |              |
| - Assign -            |                  |              |
| - Exit -              |                  |              |

- **Day** - specifies the day of the week by entering the three letter abbreviation of the day (Mon, Tue, Wed, Thu, Fri, Sat, or Sun). If you enter “\*”, you assign the message to all days of the week.
- **Channel** - enter a channel number from 0 to 7 to specify an internal channel, or A0 or A1 to assign the message to an cross-connect channel. The star (\*) can be used to assign the same message to all internal channels (0-7) at the same time. Channel 7 may not be used if telephone set-based OA&M access is also established.
- **Filename** - enter the filename of a voice message or use the Browse feature to browse through the available filenames and select one. A file name consists of 8 alphanumeric characters a dot and 3-character extension.
- **Browse** - is used to scan through the list of available messages.

- **Time** - enter time to start the message in the 24 hour clock form (HH:MM). The star (\*) can be used to assign a message for an entire day. All previous assignments for that day and channel are deleted and replaced with an assignment starting at 00:00 time. If you specify 00:00, all assignments for 00:00 are changed and all other assignments stay the same.
- **Abstract** - add informative text about the message assignment.
- **Assign** - assigns the selected message to the channel for the specified day and time.
- **Exit** - allows you to exit the Assign Message screen and return to the previous menu without assigning anything.

## List Assignments

This screen allows you to display the message assignments for a given channel on a given day of the week.

```
[10002345]           - Show Assignments -           [NT_DISTRIB]

Day: -> THU <-

Channel: 2

- Show Assignments-

- Exit -
```

- **Day** - specifies the day of the week that you wish to display the assignments, by entering the three letter abbreviation of the day (Mon, Tue, Wed, Thu, Fri, Sat, or Sun).

- **Channel** - enter a channel number from 0 to 7 to specify an internal channel, or A0 or A1 to specify a cross-connect channel you wish to display the assignments.
- **Show** - is selected to display the assignments.
- **Exit** - allows you to exit the List Assignments screen and return to the previous menu without displaying anything.

## Copy Assignments

This screen is used to copy assignments from one channel for a given day into one or more channels for their given days. This way, a complex assignment for one day can be copied to one or more other days of the week.

|                        |                      |              |
|------------------------|----------------------|--------------|
| [10002345]             | - Copy Assignments - | [NT_DISTRIB] |
| Day: -> Wed <-         |                      |              |
| Channel: 0             |                      |              |
| Destination Day: Thu   |                      |              |
| Destination Channel: 6 |                      |              |
| - Copy Assignments -   |                      |              |
| - Exit -               |                      |              |

- **Day** - specifies the day of the week that you wish to copy the assignments from. Enter the three letter abbreviation of the day (Mon, Tue, Wed, Thu, Fri, Sat, or Sun).

- **Channel** - enter a channel number from 0 to 7 to specify an internal channel, or A0 or A1 to specify a cross-connect channel you wish to copy the assignments from.
- **Destination Day** - specifies the day of the week that you wish to copy the assignments to.
- **Destination Channel** - enter a channel number from 0 to 7 to specify an internal channel, or A0 or A1 to specify a cross-connect channel you wish to copy the assignments to.
- **Copy Assignments** - select it to execute copying from the specified channel to the specified channel. If you enter Wed channel \*, system will copy all assignments for Wednesday for that channel.
- **Exit** - allows you to exit the Copy Assignments screen and return to the previous menu without copying anything.

## Clear Assignments

This screen allows you to clear individual or multiple message assignments for a given day of the week.

```
[10002345]          - Clear Assignments -          [NT_DISTRIB]

    Day: -> Mon <-

Channel: *

Time: 00:00

          - Unassign -

          - Exit -
```

- **Day** - specifies the day of the week that you wish to clear the assignments. Enter the three letter abbreviation of the day (Mon, Tue, Wed, Thu, Fri, Sat, or Sun). By entering “\*”, you specify the entire week.

- **Channel** - enter a channel number from 0 to 7 to specify an internal channel, or A0 or A1 to specify a cross-connect channel you wish to clear the assignments. The star (\*) can be used to clear all assignments for internal channels 0-7.
- **Time** - enter time of the message assignment you wish to clear. The time is specified in the 24 hour clock form (HH:MM). If you enter “\*”, all assignments for that channel for that day will be cleared.
- **Unassign** - clears the specified assignments.
- **Exit** - allows you to exit the Clear Assignments screen and return to the previous menu without clearing anything.

## Record Messages

This screen controls the recording of messages on the MIRAN card.

|                       |                    |              |
|-----------------------|--------------------|--------------|
| [10002345]            | - Record Message - | [NT_DISTRIB] |
| Audio Input: -> A0 <- |                    |              |
| Filename:c:philip.ULW |                    |              |
| - Browse -            |                    |              |
| Duration: 20          |                    |              |
| - Start Recording -   |                    |              |
| - Stop Recording -    |                    |              |
| - Exit -              |                    |              |

- **Audio Input** - enter an internal recording channel A0 or A1. Only these two channels can be used for message recording.



- **Filename** - enter the filename of a voice message and use the Browse feature to browse through the existing filenames to make sure that the file you are about to record does not already exist. A file name consists of 8 alphanumeric characters a dot and 3-character extension.
- **Browse** - is used to scan through the list of available messages.
- **Duration** - specifies the duration of a recording or select Stop Recording. You must account for full duration of recording.
- **Start/Stop Recording** - starts and stops the recording process. Recording will stop either if duration time is reached, the file system is full, or the Stop Recording option is selected.
- **Exit** - allows you to exit the Record Message screen and return to the previous menu without recording anything.

## Play Message

This screen allows you to check messages by playing them back. It does not allow you to change messages assignments.

```
[10002345]          - Play Message -          [NT_DISTRIB]

Channel: -> A0 <-

Filename:A:MSG0001.ULW

          - Browse -

          - Start Playback -

          - Stop Playback -

          - Exit -
```

To verify a message, setup a test route to play the message. After the message is accepted, you can assign it to a regular route.

- **Channel** - enter channel A0 or A1 to specify an internal recording channel you wish to use. Only these two channels can be used play message recording.
- **Filename** - enter the filename of a voice message you wish to play back or use the Browse feature to browse through the existing filenames to select the one you wish to play back. A file name consists of 8 alphanumeric characters a dot and 3-character extension.
- **Browse** - is used to scan through the list of available messages.
- **Start/Stop Playback** - starts and stops the playback process. Playback will stop either if duration time is reached, the end of file is reached, or the Stop Playback option is selected.
- **Exit** - allows you to exit the Play Message screen and return to the previous menu without recording anything.

## Convert Message File

This screen controls the conversion of voice files from one form to another facilitate use of files created in a PC recording environment.

The conversion can be from .ULW format of 8kHz 8-bit PCM to the .WAV format of 8kHz 8-bit PCM with descriptive WAV header.

```
[10002345]          - Convert Message File -          [NT_DISTRIB]

Input Filename: -> A:MSG0002.WAV          <-

          - Browse -

Output Filename:A:MSG0002.ULW

          - Convert WAV to PCM -

          - Convert PCM to WAV -

          - Exit -
```

**Note:** The conversion process makes a duplicate copy of the input file, ensure sufficient disk space for the conversion operation and discard unwanted files.

- **Input Filename** - enter the filename of a voice message you wish to convert or use the **Browse** feature to browse through the existing filenames to select the one you wish to convert. The file must be in the 8.3 format (8 characters a dot and 3 extension characters).
- **Browse** - is used to scan through the list of available messages.
- **Output Filename** - enter the filename of a voice message you converted. If you don't enter the output filename, this filename will have the same name as the input file with the appropriate extension (.WAV, .ALW, or .ULW) based on the conversion used.
- **Convert** - select the appropriate conversion option to convert the input file format into the output file format.
- **Exit** - allows you to exit the Play Message screen and return to the previous menu without recording anything.

## Operational Statistics

This screen is used to check the current traffic statistics for the internal channels. The cross-connect channels are not displayed since the MIRAN card has no control over the traffic related to these channels.

[10002345]
- Operational Statistics -
[NT\_DISTRIB]

|    | Last Hour | Average | Last Day | Average | Last Week | Average |
|----|-----------|---------|----------|---------|-----------|---------|
| 00 | 34        | 232     | 122      | 423     | 2344      | 3109    |
| 01 | 34        | 232     | 122      | 423     | 2344      | 3109    |
| 02 | 34        | 232     | 122      | 423     | 2344      | 3109    |
| 03 | 34        | 232     | 122      | 423     | 2344      | 3109    |
| 04 | 34        | 232     | 122      | 423     | 2344      | 3109    |
| 05 | 34        | 232     | 122      | 423     | 2344      | 3109    |
| 06 | 34        | 232     | 122      | 423     | 2344      | 3109    |
| 07 | 34        | 232     | 122      | 423     | 2344      | 3109    |

- Clear Statistics -

- Exit -

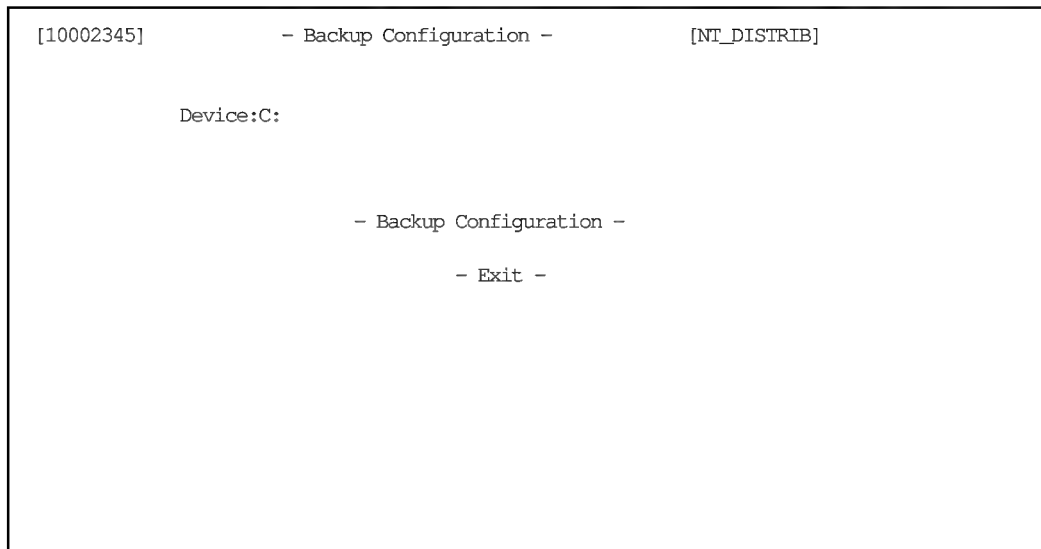
Command: RESETSTAT

OK : Statistics Reset

- **Clear Statistics** - select any one of the eight channels and select Clear Statistics to clear the channel statistics
- **Exit** - allows you to exit the Operational Statistics screen and return to the previous menu without affecting the count for each channel.
- **RESETSTAT** - command used to reset current statistics.

## Backup Configuration

This screen allows you to backup the MIRAN configuration to a specified storage device.



```
[10002345]          - Backup Configuration -          [NT_DISTRIB]

Device:C:

- Backup Configuration -

- Exit -
```

- **Device** - select the storage device where you wish to backup the configuration. This is usually a PCMCIA Flash card in the external drive A:.
- **Backup Configuration** - starts the backup process to the specified device.
- **Exit** - allows you to exit the Backup Configuration screen and return to the previous menu without performing backup or exiting the screen after completing the backup.

## Restore Configuration

This screen allows you to restore the MIRAN configuration to the internal Flash memory from a backup device.

|                           |                           |              |
|---------------------------|---------------------------|--------------|
| [10002345]                | - Restore Configuration - | [NT_DISTRIB] |
| Device:A:                 |                           |              |
| - Restore Configuration - |                           |              |
| - Exit -                  |                           |              |

- **Device** - select the storage device where the backup configuration is stored. This is usually a PCMCIA Flash card in the external drive A:.
- **Restore Configuration** - starts the restoration process from the specified device.
- **Exit** - allows you to exit the Restore Configuration screen and return to the previous menu without performing configuration restoration or exiting the screen after completing the restoration.

## Playback Levels

This screen allows you to set the playback level (loudness) to be set independently for each channel.

```

[10002345]                - Playback Levels -                [NT_DISTRIB]

Internal Channels
Companding law: Mu-law

0 13 1 13 2 13 3 13
4 13 5 13 6 13 7 13

External Channels
Companding law: Mu-law
A0 13      A1 13

Channel: -> A1 <-

Level: 13

- Set Level -

- Change Codec Law -

- Exit -

```

- **Internal Channels** - displays internal channel options and their playback levels
- **External Channels** - displays external channel options and their playback levels
- **Channel** - enter a internal channel number from 0 to 7 to specify an internal channel, or A0 or A1 to specify an external cross-connect channel you wish to change the playback level.
- **Level** - enter a number from 0 to 15 to specify the level or loudness of the message playback. The lowest level is 0, 8 is nominal, and 15 is the highest level or the loudest.
- **Set Level** - saves the audio level you made for the channel.

- **Change Codec Law** - saves the companding law change you made for the channel.
- **Exit** - allows you to exit the Set Playback Level screen and return to the previous menu without changing the level of a channel.

## Run Batch Files

This menu allows you to select the file storage drive you wish to access and display the files contained on that logical drive. After you selected an option, a screen will appear displaying files. Refer to Choose a File screen that follows.

[10002345]

- Run Batch File -

[NT\_DISTRIB]

Filename: ->

<-

- Browse -

- Run Batch File -

- Exit -

- **Filename** - enter the filename of the batch file you wish to run.
- **Browse** - is used to scan through the list of available batch files.
- **Run Batch File** - starts the execution (run) of the selected batch file.
- **Exit** - allows you to exit the Run Batch File screen and return to the previous menu without running the batch file.



## MIRAN Administration

This screen lists a set of MIRAN administration menus that control the MIRAN configuration, file management, upgrades, and OA&M access.

```
[10002345]                - MIRAN Administration -                [NT_DISTRIB]

    1  File Commands

    2  Keycode Entry

    3  Software Upgrade

    4  System Information

    5  OA&M Access Configuration

    9  Back to Previous Menu...

Choose a Menu Option or 9 to Exit:
MIRAN[00]>
```

- **File Commands** - displays a menu that performs file manipulations.
- **Keycode Entry** - controls the upgrade of the MIRAN port size from small to medium and large as well as software upgrades.
- **Software Upgrade** - allows software upgrade using the PCMCIA card. A keycode is required for software upgrade but it is not required for bug fixes.
- **System Information** - displays the MIRAN hardware platform configuration and software release information.
- **OA&M Access Configuration** - controls the telephone set based OA&M access to the MIRAN.
- **Back to Previous Menu** - returns you to the previous menu.

## File Commands

This screen accesses all MIRAN file management commands.

```
[10002345]          - File Commands-          [NT_DISTRIB]

    1 List Files

    2 Copy File

    3 Delete File

    4 Rename File

    5 Move File

    9 Back to Previous Menu...

Choose a Menu Option or 9 to Exit:
MIRAN[00]>
```

- **List Files** - allows you to browse through the directory file listings for the internal drive C: and any additional PCMCIA-based stored file lists.
- **Copy File** - allows you to copy a file to a different file on the same volume or to other volumes.
- **Delete File** - deletes a selected file.
- **Rename File** - allows you to rename any existing file.
- **Move File** - copies a file to the specified location and deletes the original source file.
- **Back to Previous Menu** - returns you to the previous menu.

## List Files

This menu allows you to select the file storage drive you wish to access and display the files contained on that logical drive. After you selected an option, a screen will appear displaying files. Refer to File Display Screen on the next page.

|                              |                   |              |
|------------------------------|-------------------|--------------|
| [10002345]                   | - Choose Device - | [NT_DISTRIB] |
| 1 Internal Storage C:        |                   |              |
| 2 External ATA Card A:       |                   |              |
| 3 External ATA Card B:       |                   |              |
| 4 All Devices                |                   |              |
| 9 Exit                       |                   |              |
| Choose a Device or 9 to Exit |                   |              |

- **Internal Storage C:** - is on board Flash drive. Select this option to display its files.
- **External ATA Card A:** - is the external PCMCIA ATA Flash card installed into the external slot A. Select this option to display its files.
- **External ATA Card B:** - is the PCMCIA ATA Flash card installed into the PCMCIA slot B located on the MIRAN pc board. Select this option to display its files.
- **All Devices** - displays files located on all drives.
- **Exit** - returns you to the previous menu without choosing a device.

## File Display

This screen displays files for the selected volume or drive from the previous menu.

```
[10002345]                - View Files -                [NT_DISTRIB]
```

|   | Filename       | Size   | Time  | Date     | Description |
|---|----------------|--------|-------|----------|-------------|
| 1 | C:HOLIDAY.BAT  | 131072 | 10:15 | 20/10/96 | .bat file.  |
| 1 | C:ENYA.SND     | 131072 | 12:10 | 22/10/96 | .bat file.  |
| 1 | C:ALL_BUSY.SND | 131072 | 09:25 | 10/11/96 | .bat file.  |
| 1 | C:2ND_RAN.SND  | 131072 | 13:15 | 20/11/96 | .bat file.  |

9 Exit

4 Files

Page 1 of 1

Select a File or press Enter for more

- **Filename** - the name of the file on the selected drive. If more than 8 files exist, press the Enter key to display the rest of the files. The type of file is designated by the extension (.BAT, .SND).
- **Size** - shows the size of the file in bytes.
- **Time and Date** - is the time date the file was installed on the drive.
- **Description** - describes the type of file. In this example all the files are considered batch files (.bat).
- **Exit** - to exit the screen.

The screen also indicates the number of files listed and the page where these files are displayed. If the first page is full and there are more files on the second page, you can press Enter to display the next page.

## Copy File

This screen is used to copy a file within a volume or drive, from one drive to the other, or to backup files onto a disk.

### CAUTION

File transfer between drives should be performed with the MIRAN card disabled.

```
[10002345]                - Copy File -                [NT_DISTRIB]

Enter Source: -> A:xxxxxx.ULW <-

                        - Browse -

Enter Destination: C:xxxxxx.ULW

                        - Copy -
                        - Exit -
```

- **Enter Source** - is the file you wish to copy.
- **Browse** - is used to scan through the list of available files to select the file you wish to copy instead of typing in the name of the file.
- **Enter Destination** - is the filename where the file should be copied.
- **Copy** - copies the file you selected (sources file) into the destination filename location. If there is a filename conflict or the source filename does not exist, and error will be displayed.
- **Exit** - allows you to exit the screen before copy is performed or after the copy command has been executed.

## Delete File

### CAUTION

Before you delete a file, make sure that the file is not active at that time.

This screen allows you to delete a file from any of the available drives.

|                              |                 |              |
|------------------------------|-----------------|--------------|
| [10002345]                   | - Delete File - | [NT_DISTRIB] |
| Filename: ->C:xxxxxxx.ULW <- |                 |              |
| - Browse -                   |                 |              |
| - Delete -                   |                 |              |
| - Exit -                     |                 |              |

- **Filename** - enter the name of the file you wish to delete.
- **Browse** - allows you to scan through files in any drive and select the file you wish to delete.
- **Delete** - deletes the specified file from the Flash memory.
- **Exit** - allows you to exit the screen without deleting a file or to exit the screen after you deleted the file.

## Rename File

This screen is used to rename a file. The file can be located on any available volume (drive).

### CAUTION

Before you rename a file, make sure that the file is not active at that time.

```
[10002345]          - Rename File -          [NT_DISTRIB]

Filename: ->A:xxxxxx.ULW <-

          - Browse -

New Name: -> A:yyyyyy.ULW <-

          - Rename -

          - Exit -
```

- **Filename** - is the original file you wish to rename.
- **Browse** - allows you to scan through files in any drive and select the file you wish to rename.
- **New Name** - is the new name of the old file.
- **Rename** - renames the specified file.
- **Exit** - allows you to exit the screen without renaming a file or to exit the screen after you renamed the file.

## Move File

This screen allows you to move files between any available disk volumes.

### CAUTION

Before you move a file, make sure that the file is not active at that time.

```
[10002345]          - Move File -          [NT_DISTRIB]

Enter Source: -> A:zzzzzz.ULW <-

          - Browse -

Enter Destination: ->C:zzzzzz.ULW <-

          - Move File -

          - Exit -
```

- **Enter Source** - is the file you wish to move.
- **Browse** - is used to scan through the list of available files to select the file you wish to move instead of typing in the name of the file.
- **Enter Destination** - is the filename where the file should be moved.
- **Move File** - moves the file you selected (sources file) into the destination filename location. Following the successful copy of the source file into the destination location, the source filename is deleted.
- **Exit** - allows you to exit the screen before the move is performed or after the move command has been executed.



## Keycode Entry

This screen is used to enter a new keycode after a hardware or software upgrade to enable the upgrade.

|                                     |                   |              |
|-------------------------------------|-------------------|--------------|
| [10002345]                          | - Keycode Entry - | [NT_DISTRIB] |
| <br>Current Configuration<br>-----  |                   |              |
| Version: 1.30                       |                   |              |
| PARMS: INT= 8 EXT= 2                |                   |              |
| KEYCODE: 01476536 42542266 74412263 |                   |              |
| <br>New Parameters<br>-----         |                   |              |
| Internal Ports:                     |                   |              |
| External Ports:                     |                   |              |
| Key Code:                           |                   |              |
| <br>- Execute -                     |                   |              |
| <br>- Exit -                        |                   |              |

- **Current Configuration** - displays the currently installed configuration that includes the application name and version, hardware ports, and the current keycode.
- **New Parameters** - displays the MIRAN new port option and the new keycode.
- **Internal Ports** - displays the number of available internal one-to-one ports.
- **External Ports** - displays the number of available cross-connect channels.
- **Key Code** - enter a new 24-digit keycode as 3 groups of 8 digits separated by spaces. If incorrect keycode is entered, a message is displayed indicating keycode mismatch.

- **Execute** - executes the new keycode and enables the upgrade.
- **Exit** - you can exit the screen before or after you execute the upgrade.

## Software Upgrade

If a software upgrade is performed, an new keycode will be required. For a bug fix, a new keycode is not required.

### CAUTION

Do not reboot or power down the MIRAN card during software upgrade process. When the upgrade is complete, the system acknowledges with an OK. **After OK is displayed, you must COLD REBOOT the card to activate the software upgrade.**

This screen allows you to perform the software upgrade on the MIRAN.

|                               |                      |              |
|-------------------------------|----------------------|--------------|
| [10002345]                    | - Software Upgrade - | [NT_DISTRIB] |
| Filename: ->A:205B1912.130 <- |                      |              |
| - Browse -                    |                      |              |
| - Upgrade -                   |                      |              |
| - Exit -                      |                      |              |

- **Filename** - is the file you wish to download onto the MIRAN internal Flash memory to upgrade the current software.
- **Browse** - is used to scan through the list of available upgrade files to select the file you wish to download into the internal Flash memory. The selected file appears in the Filename space on the screen.

- **Upgrade** - places the selected file into the internal program Flash memory on the MIRAN card.
- **Exit** - allows you to exit the screen before the software upgrade is performed or after the Perform Upgrade command has been executed.

**Note:** Do not reboot or power down the MIRAN card during software upgrade process.

## System Information

This screen displays the current hardware and software configuration of the MIRAN card. This information can be used when diagnosing hardware and software issues that may be related to the product release.

```
[10002345]          - System Info -          [NT_DISTRIB]

                    Hardware Configuration
                    -----

                        CPU: 486DX4-100
                        Level 2 Cache: Not Installed
                        System Memory: 4 Mbytes
Disk A: (External ATA): Installed
Disk B: (Internal ATA): Not Installed
Disk C: (Internal PCI): 2 Mbytes

                    Software Configuration
                    -----

                        Application: NTAG37AA Rls 1.30
                        8051XA Firmware: NTAG45AA Rls

                        Press Enter to continue
```

- **Hardware Configuration** - displays the CPU, system memory, and the status of the drives.

- **Software Configuration** - displays the application, firmware, and software releases.
- **To continue** - press Enter to continue to the next system information page.

## OA&M Access Configuration

### CAUTION

Before you enable channel 7 for the telephone set-based OA&M access, make sure it is not configured for RAN or MOH. You can also use the command ENBLESET to enable channel 7 for the telephone set.

This screen enables or disables the telephone-based OA&M access to the MIRAN. The default is disabled.

```
[10002345]      - OA&M Access Configuration -                      [NT_DISTRIB]

                Current Configuration
                -----

Set Based Access (Channel 7): Enabled

                                - Enable Set Based Access -

                                - Disable Set Based Access -

                                - Exit -

Command: ENBLESET
```

- **Set Based Access (Channel 7)** - indicates the current status of the telephone set based OA&M access.

- **Enable Set Based Access** - enables the telephone set based OA&M access. It configures channel 7 for this purpose and therefore channel 7 cannot be used for RAN assignments.
- **Disable Set Based Access** - disables the telephone set based OA&M access and allows channel 7 to be used for RAN assignments.
- **Exit** - allows you to exit the screen before or after modifying the current status of channel 7

## Maintenance and Diagnostics

This menu provides access to the MIRAN maintenance and diagnostics. It is divided into user and distributor accessible functions.

```
[10002345]           - Maintenance and Diagnostics -           [NT_DISTRIB]

  1 System Information
  2 Password Change
  3 Warm Reboot
  4 Cold Reboot
  9 Back to Previous Menu...

Choose a Menu Option or 9 to Exit:
MIRAN[00]>
```

Diagram illustrating the Maintenance and Diagnostics menu structure:

- User Level** (indicated by a bracket):
  - 1 System Information
  - 2 Password Change
- Distributor Level** (indicated by a bracket):
  - 3 Warm Reboot
  - 4 Cold Reboot
- 9 Back to Previous Menu...

- **System Information** - displays hardware and software configuration.
- **Password Change** - allows the current password to be changed based on the level of access of the current user.
- **Warm Reboot** - the host is reset by the 8051XA. (Duration 1 minute).

- **Cold Reboot** - invokes full MIRAN reboot. (Duration 2 minutes).
- **Back to Previous Menu** - returns you to the previous menu.

## Password Change

This menu is used to change the existing password used for OA&M access. Holder of a password can alter a password of the same level or lower. For example, a user can change only user password, a distributor can change user and distributor passwords.

[10002345]

- Password Change -

[NT\_DISTRIB]

1 User Password

2 Distributer Password

User Level

Distributor Level

9 Back to Previous Menu...

Choose a Menu Option or 9 to Exit:  
MIRAN[00]>

- **User Password** - is able to access only user level functions.  
*Note:* The user level password must be all numeric.
- **Distributor Password** - is able to access distributor and user functions (distributor password can be alphanumeric).
- **Back to Previous Menu** - returns you to the previous menu.

## Password Change - User Password

This screen is used to change the user password (the default password is **4321**). This password can be changed by the user and distributor. The password must be at least four characters long. If the telephone set-based OA&M access is used, the password must be numbers only (no alpha characters are allowed).

|                      |                   |              |
|----------------------|-------------------|--------------|
| [10002345]           | - User Password - | [NT_DISTRIB] |
|                      |                   |              |
| Old Password: ->4321 | <-                |              |
| New Password: ->     | <-                |              |
| New Password: ->     | <-                |              |
|                      |                   |              |
| - Change -           |                   |              |
| - Exit -             |                   |              |

- **Old Password** - is the existing user password.
- **New Password** - replaces the existing password.
- **New Password** - new user password appears after the Change command has been executed.
- **Change** - causes the password to be changed and confirmed.
- **Exit** - exits the screen before changing the password or alternately, exits the screen after the change password was executed.

## Password Change - Distributor Password

This screen is used to change the distributors password (the default password is **4321**). This password can be changed by the distributor. The password must be at least four characters long.

|                      |                          |              |
|----------------------|--------------------------|--------------|
| [10002345]           | - Distributor Password - | [NT_DISTRIB] |
| Old Password: ->4321 | <-                       |              |
| New Password: ->     | <-                       |              |
| New Password: ->     | <-                       |              |
| - Change -           |                          |              |
| - Exit -             |                          |              |

- **Old Password** - is the existing distributor password.
- **New Password** - replaces the existing distributor password.
- **New Password** - new distributor password appears after the Change command has been executed.
- **Change** - causes the password to be changed and confirmed.
- **Exit** - exits the screen before changing the password or alternately, exits the screen after the change password was executed.



## MIRAN OA&M command set

Instead of using the menu structure described in the first half of this chapter, you can enter commands on the command line in the Main Menu. This is advantageous to an experienced user who knows what command to use therefore does not have to navigate through the OA&M menu structure.

Most of these commands can also be used in batch files to allow complex configurations to be executed in a single command.

Files are specified using DOS convention of an 8-character filename followed by a 3-character extension. The filename is normally preceded by a device descriptor as shown in Table 25.

**Table 25**  
**MIRAN disk drives**

| Drive name            | Designation |
|-----------------------|-------------|
| External PCMCIA Drive | A:          |
| Internal PCMCIA Drive | B:          |
| Internal Flash Drive  | C:          |

The MIRAN channels are named as shown in Table 26:

**Table 26**  
**Channel designations**

| Channels                 | Designation      |
|--------------------------|------------------|
| Internal                 | 0-7              |
| External (cross-connect) | A0, A1           |
| Analog Inputs            | ANALOG0, ANALOG1 |

These designators are used on the command line when executing MIRAN commands.

## OA&M Command summary

OA&M commands are used instead of using different menus to perform system applications configuration. You enter a command on the command line at the bottom of the Main Menu screen, refer to fields description in the screen of “Main Menu” on page 113. This screen also shows an example of a command entered on the command line.

Example: **MIRAN[00]>CONVERT PLSWAIT.WAV MSG00005.ULW**

Table 27 lists MIRAN OA&M commands along with their descriptions, parameters, and syntax definitions. It also lists terminal-based OA&M access commands that can be entered on the command line on the terminal screen.

**Table 27**  
**OA&M command summary (Part 1 of 4)**

| Command      | Parameters                                                    | Function                                                                        |
|--------------|---------------------------------------------------------------|---------------------------------------------------------------------------------|
| ACCESS       | [VLAN Number]                                                 | Passthru to another MIRAN card over VLAN.                                       |
| ASSIGN       | [Day] [Channel]<br>[Device:File-name.PCM] [Time]              | Assign a message to a channel on a given time and date. Wild cards are allowed. |
| ASSIGNCOPY   | [Day] [Channel] [Day]<br>[Channel]                            | Copy an assignment for a given day and channel to another day and channel.      |
| BACKUP       | [Device]                                                      | Backs-up the assignment information to the internal C: drive.                   |
| CONV_PCM_WAV | [Input Device:File-name.SND] [Output<br>Device:File-name.WAV] | Convert a file from PCM to WAV                                                  |
| CONV_WAV_PCM | [Input Device:File-name.WAV] [Output<br>Device:File-name.ULW] | Convert a file from WAV to PCM                                                  |

**Table 27**  
**OA&M command summary (Part 2 of 4)**

| Command     | Parameters                                                         | Function                                         |
|-------------|--------------------------------------------------------------------|--------------------------------------------------|
| COPY        | [Source Device:File-name.Type] [Destination Device:File-name.Type] | Copy a disk file.                                |
| DELETE      | [Device:File-name.Type]                                            | Delete a disk file.                              |
| DISABLESET  |                                                                    | Disable Set-Based Channel 7                      |
| DISTRIBPASS | [Old Password]<br>[New Password1]<br>[New Password1]               | Change the distributor password.                 |
| ENABLESET   |                                                                    | Enable Set-Based Channel 7.                      |
| KEYCODE     | [Keycode]                                                          | Capacity upgrade by means of a keycode.          |
| LIST        | [Device:File-name.Type]                                            | List files for a given volume.                   |
| LISTALL     | [Filename.Type]                                                    | List files for all volumes.                      |
| LOGOFF      |                                                                    | Log off and bring user back to the login screen. |
| MOVE        | [Source Device:File-name.Type] [Destination Device:File-name.Type] | Move a disk file.                                |
| PLAY        | [Channel]<br>[Device:File-name.Type]                               | Play a voice file on a given channel.            |
| PLAYLEV     | [Channel] [Level]                                                  | Set the playback level for a particular channel. |
| PLAYSTOP    | [Channel]                                                          | Stop playback of a file on a given channel.      |

**Table 27**  
**OA&M command summary (Part 3 of 4)**

| Command    | Parameters                                          | Function                                                    |
|------------|-----------------------------------------------------|-------------------------------------------------------------|
| RECORD     | [Channel]<br>[Device:File-name.Type] [Duration]     | Record from a given channel to a file for a given duration. |
| RECORDSTOP | [Channel]                                           | Stop recording on a given channel.                          |
| RENAME     | [Device:Old_File_Name.Type]<br>[New_File_Name.Type] | Rename a disk file.                                         |
| RESETSTAT  |                                                     | Reset channel statistics.                                   |
| RESTORE    | [Device]                                            | Restore the backed-up configuration from the C: drive.      |
| RUN        | [Device:File-name.BAT]                              | Run a batch file.                                           |
| SETDATE    | [Day of Month/Month/Year]                           | Set the date.                                               |
| SETDAY     | [Day]                                               | Set the day-of-week.                                        |
| SETTIME    | [Hour:Min]                                          | Set the time-of-day.                                        |
| SHOW       | [Day] [Channel]                                     | Lists the assignments for a given day and channel.          |
| STATS      |                                                     | Show channel statistics screen.                             |
| STATUS     |                                                     | Show pack status screen.                                    |
| SW_UPGRADE | [Device:File-name.Type]                             | Software upgrade from disk file.                            |
| SYSINFO    |                                                     | Bring user to the system information screen.                |

**Table 27**  
**OA&M command summary (Part 4 of 4)**

| Command  | Parameters                                           | Function                                 |
|----------|------------------------------------------------------|------------------------------------------|
| TIME     |                                                      | Show the current day, time, and date     |
| UNASSIGN | [Day] [Channel]<br>[Time]                            | Unassign a message from a given channel. |
| USERPASS | [Old Password]<br>[New Password1]<br>[New Password1] | Change the user password.                |

## OA&M Command Syntax

The command syntax explains in detail each command and its parameters.

### Operational Statistics

Displays a report of the RAN statistics.

Syntax

**STATS**

### System Information

Displays a report of the system hardware configuration.

Syntax

**SYSINFO**

### Change Password - User, Administrator

MIRAN supports two levels of password security.

|         |             |                                                                                                               |
|---------|-------------|---------------------------------------------------------------------------------------------------------------|
| Level 1 | Distributor | Has restricted diagnostic and debug functions.                                                                |
| Level 2 | User        | Can change configurations, messages, upgrade software etc. but can not access diagnostics or debug functions. |

These commands allow the system passwords to be updated. It will not be possible to change the password of a higher level user.

Syntax: USERPASS [old password] [new password1] [new password1]

DISTRIBPASS [old password] [new password1] [new password1]

## Message Commands

The following commands deal with announcement messages.

### Message Record

Records a message and stores it in a file. Recording starts immediately and terminates after the specified duration.

|                   |                                                                                                                             |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Syntax:           | <b>RECORD</b> [source] [device:filename] [duration]                                                                         |
| [source]          | ANALOG1, ANALOG2, CHANNEL 7 (for set)                                                                                       |
| [device:filename] | Device indicates on which device the file resides. The file name is a maximum of 8 characters with a 3 character extension. |
| [duration]        | Maximum play duration in seconds.                                                                                           |

### Stop Recording Message

Halts all message recording.

|         |                   |
|---------|-------------------|
| Syntax: | <b>RECORDSTOP</b> |
|---------|-------------------|

### Play Message

Plays a message file via the specified port.

|                   |                                                                                                                                                                                                                           |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Syntax:           | <b>PLAY</b> [destination] [device:filename] [duration]                                                                                                                                                                    |
| [destination]     | A0 or A1 (.ULW or .ALW files only)<br>channel 7 (OA&M channel))                                                                                                                                                           |
| [device:filename] | Device indicates on which device the file resides. The file name is a maximum of 8 characters with a 3 character extension.<br><br>If ANALOG0 or ANALOG1 is specified, the analog input ports are used as message source. |
| [duration]        | Maximum play duration in seconds. If duration is omitted then all the message will be played.                                                                                                                             |

### Stop Playback Message

Stops playback of a message file via the specified port. This can be used to stop playback of a long message before making a new assignment.

|           |                           |
|-----------|---------------------------|
| Syntax    | <b>PLAYSTOP</b> [channel] |
| [channel] | 0-7, A0, A1               |

### Set Playback Level Message

Sets the playback level for given channel.

|           |                                                            |
|-----------|------------------------------------------------------------|
| Syntax:   | <b>PLAYLEV</b> [channel] [level]                           |
| [channel] | 0-7 for internal channels<br>A0, A1 for external channels. |
| [level]   | Integer in range 0-15.                                     |

### Convert Message File

Converts audio files from one format to another. Raw PCM (.ULW or .ALW) is the default format used by the MIRAN card. This utility allows conversion between any combination of the following formats:

Windows<sup>TM</sup> format audio file .WAV

Raw PCM .ULW, .ALW

Syntax and description of message files

|                         |                                                                                                 |
|-------------------------|-------------------------------------------------------------------------------------------------|
| Syntax:                 | <b>CONV_PCM_WAV</b> [src<br>dev:filename.ULW] [dest<br>dev:filename.WAV]                        |
| [src dev:filename.ext]  | Device indicates on which device the file resides. Filename, max 8 characters.                  |
| [dest dev:filename.ext] | Device indicates on which device the converted file will be placed. Filename, max 8 characters. |

**Assign Message**

MIRAN supports up to 16 different message assignments per day of the week, as shown below:

| Event | File         | Description               | Time/Date |
|-------|--------------|---------------------------|-----------|
| 0     | MSG00001.ULW | Please hold for operator. | 08:30 Mon |
| 1     | MSG00002.ULW | Office is closed.         | 17:00 Mon |
| 2     | MSG00001.ULW | Please hold for operator. | 08:30 Tue |
| 3     | MSG00002.ULW | Office is closed.         | 17:00 Tue |
| 4     | MSG00001.ULW | Please hold for operator. | 08:30 Wed |
| 5     | MSG00002.ULW | Office is closed.         | 17:00 Wed |
| 6     | MSG00001.ULW | Please hold for operator. | 08:30 Thu |
| 7     | MSG00002.ULW | Office is closed.         | 17:00 Thu |
| 8     | MSG00001.ULW | Please hold for operator. | 08:30 Fri |
| 9     | MSG00002.ULW | Office is closed.         | 17:00 Fri |

The list above will play the message “Please hold for operator” during office hours and the message “Office is closed” for all other times but only for the specified channel.

|                    |                                                                                                                                                                                      |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Syntax:            | <b>ASSIGN</b> [day] [channel] [device:filename] [time]                                                                                                                               |
| [day]              | Specifies the day of the week the assignment is for                                                                                                                                  |
| [channel]          | Specifies to which channel the sound file will be assigned                                                                                                                           |
| [dev:filename.ext] | Device indicates on which device the file resides. Filename, max 8 characters. If ANALOG0 or ANALOG1 are specified, the analog input ports will be used as the source of the message |
| [Time]             | This is the time at which the announcement will be switched in. It is in the format HH:MM.                                                                                           |



### **Assign Copy**

Copy an assignment for a given day and to channel to another day and channel.

|            |                                                       |
|------------|-------------------------------------------------------|
| Syntax:    | <b>ASSIGNCOPY</b> [sday] [schannel] [dday] [dchannel] |
| [sday]     | Specifies the source day of the week.                 |
| [schannel] | Specifies the source channel.                         |
| [dday]     | Specifies the destination day of the week.            |
| [dchannel] | Specifies the destination channel.                    |

### **Unassign Event**

Unassigning an event will remove it from the event list for the specified channel and will clear the event time and day. The unassign command will be accepted only if the event is the last one on the list.

|           |                                                                                            |
|-----------|--------------------------------------------------------------------------------------------|
| Syntax:   | <b>UNASSIGN</b> [day] [channel] [time]                                                     |
| [day]     | Specifies the day of the week the assignment is for.                                       |
| [channel] | Specifies to which channel the event will be unassigned.                                   |
| [time]    | This is the time at which the announcement will be switched in. It is in the format HH:MM. |

### **Show Assignments**

This command displays the assignments for the specified channel for a given day.

|           |                                                          |
|-----------|----------------------------------------------------------|
| Syntax:   | <b>SHOW</b> [day] [channel]                              |
| [day]     | Specifies the day of the week.                           |
| [channel] | Specifies to which channel the event will be unassigned. |

## **File Commands**

Control RAN and music files.

### List Files

Lists all the files on the specified device or drive:.

|               |                                                                                                                                                                |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Syntax:       | <b>LIST</b> [device:] [filename] [.extension]                                                                                                                  |
| [device:]     | Device indicates on which device the file resides.                                                                                                             |
| [filename:]   | Filename, max 8 characters or wildcard “*”. If a filename is omitted then all files on the specified device will be listed.                                    |
| [.extension:] | The extension can be max 3 characters or wildcard “*”. If an extension is omitted then all files with a null extension on the specified device will be listed. |

### List All Files

The function of this command is the same as for the LIST command but is applied over all storage devices.

|               |                                                                                                                                                                |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Syntax:       | <b>LISTALL</b> [filename][.extension]                                                                                                                          |
| [filename:]   | Filename, max 8 characters or wildcard “*”. If a filename is omitted then all files on the specified device will be listed.                                    |
| [.extension:] | The extension can be max 3 characters or wildcard “*”. If an extension is omitted then all files with a null extension on the specified device will be listed. |

### Copy File

Allows you to copy files:

|                         |                                                                                                                       |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Syntax:                 | <b>COPY</b> [src device:filename.ext] [dest device:filename.ext]                                                      |
| [src dev:filename.ext]  | Device indicates on which device the file resides. Filename, max 8 characters and.ext max 3 characters.               |
| [dest dev:filename.ext] | Device indicates on which device the copied file will be placed. Filename, max 8 characters and.ext max 3 characters. |

### Move File

Allows you to move files from a source to a destination location:

Syntax:                **MOVE** [src device:filename.ext] [dest device:filename.ext].

[src                    Device indicates on which device the file resides.  
dev:filename.ext]    Filename, max 8 characters and .ext max 3 characters.

[dest                  Device indicates on which device the moved file will  
dev:filename.ext]    be placed. Filename, max 8 characters and .ext max 3 characters.

### Delete file

Allows you to delete a file:

Syntax:                **DELETE** [dev:filename.ext]

[dev:filename.ext]    Device indicates on which device the file resides.  
Filename, max 8 characters and .ext max 3 characters.

### Rename File

Allows you to rename a file:

Syntax:                **RENAME** [old dev:filename.ext] [new filename.ext].

[old                    Device indicates on which device the original file  
dev:filename.ext]    resides. Filename, max 8 characters and .ext max 3 characters.

[new                    New filename, max 8 characters and .ext max 3  
filename.ext]        characters

### Backup

This command copies all active configuration message files to the specified destination.:

Syntax:                **BACKUP** [destination]

[destination]        This can be one of the following, device: - logical storage device A:, B: or C:.

                        ANALOG0 - Analogue output port 0

                        ANALOG1 - Analogue output port 1

### Restore

This command restores files that were backed up using the BACKUP command. Only files that were backed up to a logical device can be restored:

Syntax:               **RESTORE** [device:]  
[device:]             Device indicates on which device the backed up file resides.

### Upgrade

This command upgrades the MIRAN operating system and application software to the version stored on the specified device:

Syntax:               **SW\_UPGRADE** [device:]  
[device:]             Device indicates on which device the new software resides.

### Run Batch File

Allows you to run batch files:

Syntax:               **RUN** [device:filename.BAT]  
[device:filename]    Device indicates on which device the file resides.  
Filename, max 8 characters. The extension.BAT will be assumed.

### Comment

This allows you to write comments:

Syntax:               **#**  
If the first character of a command string is “#” then the string is assumed to be a comment and is ignored.

## Miscellaneous Commands

These commands configure and display time and date parameters.

### Set Time of Day

This command sets the time of day.:

Syntax:               **SETTIME** [HH:MM]  
[HH:MM]             Time of day in hours and minutes.

**Set Day of Week**

This command sets the day of the week.:

Syntax:                **SETDAY** [day]  
[day]                    Day of the week, i.e.  
                          (MON,TUE,WED,THU,FRI,SAT,SUN).

**Set the date**

This command sets the date for the internal calendar.:

Syntax:                **SETDATE** [day of month / month / year]

**Display Day and Time**

Shows the current day-of-week and time.

Syntax:                **TIME**

**Show Pack Status**

Shows the pack status screen.

Syntax:                **STATUS**

**Show Statistics**

Shows the current statistics for channel usage.

Syntax:                **STATS**

**Clear Statistics**

Resets all of the statistics values back to zero.

Syntax:                **RESETSTAT**

**Enable Set Based OA&M**

This command enables channel 7 to operate as the set based OA&M channel.

Syntax:                **ENABLESET**

### **Disable Set Based OA&M**

This command disables channel 7 to operate as the set based OA&M channel.

Syntax: **DISABLESET**

### **Logoff**

This command logs you out of the terminal OA&M.

Syntax: **LOGOFF**

## **MIRAN Batch File Support**

The MIRAN batch files are used to execute sequences of frequently used commands. The syntax of these commands is the same as for the command line. Comments are indicated by a “#” character in the leftmost column.

### **Restrictions**

The maximum number of lines per batch file (including comments) is limited to 255.

Commands and comments can not be mixed on the same line.

Batch file Example

# Batch file INIT.BAT

# Initial channel assignments

# Copy speech file pls\_hold from device A: to internal flash device C:

COPY A:PLS\_HOLD.ULW C:

# Assign “please hold” message to channel 0

ASSIGN MON 0 C:PLS\_HOLD.ULW 00:00

# Assign music connected to analogue port 0 to channel 1

ASSIGN MON 1 ANALOG0 00:00

## Special Features

This section will give examples and setup information for two special RAN features supported by the MIRAN:

- Playing different messages at different times on a single channel
- Setting up emergency messages quickly

### Playing different messages at different times

#### Setup instructions

It will be possible to configure up to 16 different message/times per RAN channel, each message will begin to played at the specified time until the next timed assignment, for example if the message assignment for RAN channel 0 is configured as shown below.

```
Message Assignment for channel 0:

CHANNEL.....TIME.....FILE .....ABSTRACT
..0.....08:30.....MSG00001.ULW .office is open
..0.....13:00.....MSG00002.ULW .closed for lunch
..0.....14:00.....MSG00003.ULW .office is open
..0.....15:00.....MSG00004.ULW .office is closed

-----press enter to continue-----

MIRAN[00]
```

The schedule of messages played to callers is:

- 15:00 - 08:29 MSG00003.ULW “Office is closed”
- 08:30 - 12:29 MSG00001.ULW “Office is open”
- 12:30 - 13:29 MSG00002.ULW “Closed for lunch”
- 13:30 - 14:59 MSG00001.ULW “Office is open”

Note that the last message at 15:00 will be played at the beginning of the following day.

These messages can be assigned using one of the following two methods:

- 1 1. Directly from the command line using the “ASSIGN [channel] [dev:filename.ULW] [hh:mm]” command  

```
ASSIGN 0 MSG00004.ULW 08:00
```
- 2 The same message can be assigned using the menu system as follows.
  - a From the MAIN MENU enter 1 for RAN Administration.
  - b In the RAN Administration menu enter 1 for Message Commands.
  - c In the Message Commands menu enter 1 for Assign Message.
  - d Enter channel 0, a list of the message assignments for channel 0 is displayed until the Enter key is pressed.
  - e After the Enter key has been pressed the display lists all the available message files, the user selects the file MSG00004.ULW by entering the number listed beside the file name.
  - f The user is then prompted for the time which is entered as “08:00”.
  - g The user is then prompted to confirm the assignment.

After using any of the above methods, the new assignment appears as shown in the screen below.

```
Message Assignment for channel 0:

CHANNEL.....TIME.....FILE.....ABSTRACT
..0.....12:00.....MSG00001.ULW .Partial service is available
..0.....13:00.....MSG00002.ULW .office is open
..0.....14:00.....MSG00003.ULW .closed for lunch
..0.....15:00.....MSG00004.ULW .office is open
..0.....15:00.....MSG00004.ULW .office is closed

-----press enter to continue-----

MIRAN[00]
```



## Setting up emergency messages quickly

You can use either of two approaches to rapidly reconfigure the MIRAN card for Emergency Messages:

### **Method 1: use the RESTORE command**

The advantage of this method is that it is not dependent upon the current MIRAN card configuration.

- 1** Pre-configure a MIRAN card as it would operate in an emergency situation.
- 2** Backup the configuration to an external PCMCIA storage card using the BACKUP command.
- 3** During the emergency situation the MIRAN card can be completely re-configured (regardless of the current configuration) by typing the RESTORE command.

### **Method 2: use a batch file**

Approach 2 allows more flexibility than Approach 1 and may not require an external PCMCIA storage card. However, it is more sensitive to the current MIRAN configuration.

- 1** Create a single batch file which will contain all the necessary commands to configure the system with the emergency messages (i.e. ASSIGN and UNASSIGN commands).
- 2** Whenever the emergency situation arises the MIRAN can be reconfigured by typing "RUN [batch file name]".